

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
NEW SOURCE CONSTRUCTION PERMIT
OFFICE OF AIR QUALITY
AND ANDERSON OFFICE OF AIR MANAGEMENT**

**Xstrata Magnesium Corporation
1820 E 32nd Street
Anderson, Indiana 46013**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F095-13751-00114	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: Expiration Date:

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Stratospheric Ozone Protection

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), and Anderson Office of Air Management. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary scrap magnesium recycling source.

Authorized individual:	Jan Guy
Source Address:	1820 E. 32 nd Street, Anderson, Indiana 46013
Mailing Address:	1820 E. 32 nd Street, Anderson, Indiana 46013
General Source Phone Number:	(765) 643-5873
Source Description:	scrap magnesium recycling
Source Location Status:	Madison
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP)
	Minor Source, under PSD;
	Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) Two (2) electric melting furnaces, identified as FCE-3110 and FCE-3210, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack 3.
- (b) Two (2) electric continuous refining furnaces, identified as FCE-4110 and FCE-4210, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting through stack 3.
- (c) One (1) salt furnace, identified as SF-5110, with a maximum capacity of 3,260 tons of salt per year, and venting through stack 3.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, (other categories with emissions below significant thresholds) as defined in 326 IAC 2-7-1(21):

- (a) Two (2) electric resistance heaters to dry scrap magnesium, identified as HTR-2110 and HTR-2210, total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stacks 1 and 2.
- (b) One (1) shredder, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (c) Two (2) casting conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally.

- (d) Two (2) cooling conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally.
- (e) Four (4) heater feed conveyors, each with a maximum throughput of 10,560 pounds of scrap magnesium per hour, and venting internally.
- (f) One (1) shredder feed conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (g) One (1) shredder discharge conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (h) One (1) tramp iron removal magnet system, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (i) One (1) shuttle conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (j) Four (4) feed storage bins, with a total maximum capacity of 90 tons, and a maximum throughput of 61,760 tons per year and venting internally.
- (k) One (1) magnesium alloy ingot storage area venting internally.
- (l) One (1) aluminum storage area venting internally.
- (m) One (1) zinc storage area venting internally.
- (n) One (1) manganese chloride powder storage area venting internally.
- (o) One (1) primary magnesium ingot storage area venting internally.
- (p) One (1) salt mix storage area venting internally.
- (q) One (1) calcium fluoride storage area venting internally.
- (r) Five (5) natural gas space heaters with a total maximum heat capacity of 8 MMBtu, and venting internally.
- (s) Two (2) natural gas tool heaters with a maximum heat capacity of 0.5 MMBtu, and venting internally.
- (t) Two (2) natural gas mold heaters with a maximum heat capacity of 0.2 MMBtu, and venting internally.
- (u) One (1) laboratory using wet scrubbers as control.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, and Anderson Office of Air Management shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

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- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and Anderson Office of Air Management, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by Anderson Office of Air Management.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

-
- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, and Anderson Office of Air Management within a reasonable time, any information that IDEM, OAQ, and Anderson Office of Air Management may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Anderson Office of Air Management copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ, and Anderson Office of Air Management may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Management on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, and Anderson Office of Air Management may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and Anderson Office of Air Management upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Anderson Office of Air Management. IDEM, OAQ, and Anderson Office of Air Management may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Anderson Office of Air Management makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Anderson Office of Air Management within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
 - (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly

signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Anderson Office of Air Management, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Anderson Office of Air Management: (765) 648-6158

Failure to notify IDEM, OAQ, and Anderson Office of Air Management by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, and Anderson Office of Air Management may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, and Anderson Office of Air Management by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management

P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination

[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit [326 IAC 2-8-4(5)(C)]. The notification by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or Anderson Office of Air Management determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, or Anderson Office of Air Management to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or Anderson Office

of Air Management, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or Anderson Office of Air Management, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and Anderson Office of Air Management and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Management on or before the date it is due.
- (2) If IDEM, OAQ, and Anderson Office of Air Management upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, and Anderson Office of Air Management takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, and Anderson Office of Air Management, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

Any such application shall be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and Anderson Office of Air Management, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Anderson Office of Air Management U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, and Anderson Office of Air Management, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant from the entire source, except Particulate Matter (PM) shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration), emissions of particulate matter from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9

or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan to be submitted to IDEM.

C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or

(C) Waste disposal site.

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.11 Performance Testing [326 IAC 3-6]

-
- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, and Anderson Office of Air Management not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and Anderson Office of Air Management, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.12 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements shall be implemented when operation begins. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.14 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.15 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

-
- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
 - (b) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
 - (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, and Anderson Office of Air Management upon request and shall be subject to review and approval by IDEM, OAQ, and Anderson Office of Air Management. The CRP shall be prepared within

ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

- (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

-
- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of

the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the Anderson Office of Air Management makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the Anderson Office of Air Management within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 E. 8th Street
Anderson, Indiana 46011
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the

date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Anderson Office of Air Management on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) Two (2) electric melting furnaces, identified as FCE-3110 and FCE-3210, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack 3.
- (b) Two (2) electric continuous refining furnaces, identified as FCE-4110 and FCE-4210, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting through stack 3.
- (c) One (1) salt furnace, identified as SF-5110, with a maximum capacity of 3,260 tons of salt per year, and venting through stack 3.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from:

- (a) Each of the two melting furnaces shall not exceed 12.5 pounds per hour when operating at a process weight rate of 10,560 pounds per hour.
- (b) Each of the two continuous refining furnaces shall not exceed 12.5 pounds per hour when operating at a process weight of 10,560 pounds per hour.
- (c) The salt furnace shall not exceed 2.1 pound per hour when operating at a process weight of 744 pounds per hour calculated using the equation below.

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.2 FESOP Limit [326 IAC 2-8-4]

- (a) This source shall use less than 3,260 tons of 10 percent $MgCl_2$ make-up process salt per twelve (12) consecutive month period in the salt furnace (326 pounds of 10 percent $MgCl_2$ make-up process salt results in one pound of HCl emissions). This usage limit is required to limit the potential to emit of HCl to less than ten (10) tons per twelve (12) consecutive month period. Compliance with this limit makes the requirements of 326 IAC 2-7 (Title V) and 326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants) not applicable.
- (b) This source shall emit less than 62 pounds per hour of emissions per intermittent release from each furnace line not to exceed a total of 95 tons per twelve (12) consecutive months of PM₁₀. This source shall also have less than 3,064 intermittent releases for all furnace lines per twelve (12) consecutive months. Compliance with this limit makes the requirements of 326 IAC 2-7 (Title V) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 60 days after achieving maximum rate, but no less than 180 days after initial start-up, the Permittee shall perform PM-10 testing on a release from one of the furnace lines utilizing methods as approved by the Commissioner. In order to demonstrate compliance with Condition D.1.2(b), testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the furnace stack exhaust (stack 3) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2(a), the Permittee shall maintain records of the amount of salt fed to the salt furnace.
- (b) To document compliance with Condition D.1.2(b), the Permittee shall maintain records of the number of releases and the number of minutes per release.
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain records of once per shift visible emission notations of the furnace stack exhaust (stack and 3).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2(a) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Two (2) electric resistance heaters to dry scrap magnesium, identified as HTR-2110 and HTR-2210, total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stacks 1 and 2.
- (b) One (1) shredder, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (c) Two (2) casting conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally.
- (d) Two (2) cooling conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally.
- (e) Four (4) heater feed conveyors, each with a maximum throughput of 10,560 pounds of scrap magnesium per hour, and venting internally.
- (f) One (1) shredder feed conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (g) One (1) shredder discharge conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (h) One (1) tramp iron removal magnet system, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (i) One (1) shuttle conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (j) Four (4) feed storage bins, with a total maximum capacity of 90 tons, and a maximum throughput of 61,760 tons per year and venting internally.
- (k) One (1) magnesium alloy ingot storage area venting internally.
- (l) One (1) aluminum storage area venting internally.
- (m) One (1) zinc storage area venting internally.
- (n) One (1) manganese chloride powder storage area venting internally.
- (o) One (1) primary magnesium ingot storage area venting internally.
- (p) One (1) salt mix storage area venting internally.
- (q) One (1) calcium fluoride storage area venting internally.
- (r) Five (5) natural gas space heaters with a total maximum heat capacity of 8 MMBtu, and venting internally.
- (s) Two (2) natural gas tool heaters with a maximum heat capacity of 0.5 MMBtu, and venting internally.
- (t) Two (2) natural gas mold heaters with a maximum heat capacity of 0.2 MMBtu, and venting internally.
- (u) One (1) laboratory using wet scrubbers as control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

There are no emission standards applicable to these emission units. All of these emission sources have a process throughput less than 100 pounds per hour or the fines entrained in the heavy magnesium metal process material are less than 100 pounds per hour.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Xstrata Magnesium Corporation
Source Address: 1820 E. 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 E. 32nd Street, Anderson, Indiana 46013
FESOP No.: 095-3751-00114

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

AND ANDERSON OFFICE OF AIR MANAGEMENT

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Xstrata Magnesium Corporation
Source Address: 1820 E. 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 E. 32nd Street, Anderson, Indiana 46013
FESOP No.: 095-3751-00114

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
 CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION AND
ANDERSON OFFICE OF AIR MANAGEMENT**

FESOP Quarterly Report

Source Name: Xstrata Magnesium Corporation
Source Address: 1820 E. 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 E. 32nd Street, Anderson, Indiana 46013
FESOP No.: 095-3751-00114
Facility: Salt furnace
Parameter: Salt fed to furnace
Limit: Less than 3,260 tons per twelve (12) consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION AND
ANDERSON OFFICE OF AIR MANAGEMENT**

FESOP Quarterly Report

Source Name: Xstrata Magnesium Corporation
Source Address: 1820 E. 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 E. 32nd Street, Anderson, Indiana 46013
FESOP No.: 095-3751-00114
Facility: Two (2) electric melting furnaces, two (2) electric continuous refining furnaces
Parameter: PM-10 from all the furnaces
Limit: Less than 3,064 intermittent releases per twelve (12) consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
AND ANDERSON OFFICE OF AIR MANAGEMENT**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Xstrata Magnesium Corporation
Source Address: 1820 E. 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 E. 32nd Street, Anderson, Indiana 46013
FESOP No.: 095-3751-00114

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Xstrata Magnesium Corporation
Source Location: 1820 E. 32nd Street, Anderson, Indiana 46013
County: Madison
Source Description: Scrap Magnesium Recycling
Operation Permit No.: F095-13751-00114
Permit Reviewer: ERG/EG

On July 25, 2001, the Office of Air Quality (OAQ) had a notice published in the Herald Bulletin in Anderson, Indiana, stating that Xstrata Magnesium Corporation had applied for a Federally Enforceable State Operating Permit (FESOP) to operate of scrap magnesium recycling plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

1. IDEM, OAQ, made the following corrections to D.1 Facility Operation Conditions, to indicate that only approved testing methods are to be used and to remove stack identifications not associated with the furnace.

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 60 days after achieving maximum rate, but no less than 180 days after initial start-up, the Permittee shall perform PM-10 testing on a release from one of the furnace lines utilizing ~~other~~ methods as approved by the Commissioner. In order to demonstrate compliance with Condition D.1.2(b), testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the furnace stack exhaust (stacks ~~1, 2, and 3~~) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2(a), the Permittee shall maintain records of the amount of salt fed to the salt furnace.
- (b) To document compliance with Condition D.1.2(b), the Permittee shall maintain records of the number of releases and the number of minutes per release.

- (c) To document compliance with Condition D.1.5, the Permittee shall maintain records of once per shift visible emission notations of the furnace stack exhaust (stacks ~~1, 2, and 3~~).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

2. IDEM, OAQ, made the following correction to B.10 Compliance with Permit Conditions. This section has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the permittee's application to renew the permit.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit ~~except those specifically designated as not federally enforceable~~, is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.

3. IDEM, OAQ, made the following corrections to B.11 and B.20:

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by ~~a~~ **an** authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed **by the requirements of** 326 IAC 2 and 326 IAC 2-8-11.1.

Indiana Department of Environmental Management Office of Air Quality and Anderson Office of Air Management

Technical Support Document (TSD) for a Federally Enforceable Operating Permit (FESOP) and New Source Construction Permit

Source Background and Description

Source Name:	Xstrata Magnesium Corporation
Source Location:	1820 E. 32 nd Street, Anderson, Indiana 46013
County:	Madison
Source Description:	Scrap Magnesium Recycling
Operation Permit No.:	F095-13751-00114
Permit Reviewer:	ERG/EG

The Office of Air Quality (OAQ) has reviewed a FESOP application from Xstrata Magnesium Corporation relating to the operation of scrap magnesium recycling.

Source Definition

Xstrata Magnesium Corporation will be constructed on property that was purchased from Delphi Energy and Engine Management Systems. Delphi does not have control of the property any longer, but they do operate various facilities on adjacent properties. In order for two companies to be considered part of the same source, they must operate under the same two-digit SIC code and be under common control. Xstrata is a scrap magnesium recycling facility, and operates under the two digit SIC code 33. Delphi is an automotive parts manufacturing facility and operates under the two digit SIC code 37. Since the two companies operate under different SIC codes and are not under common control, they are not considered the same source.

New Emission Units and Pollution Control Equipment

The source plans to construct of the following emission units and pollution control devices:

- (a) Two (2) electric melting furnaces, identified as FCE-3110 and FCE-3210, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack 3.
- (b) Two (2) electric continuous refining furnaces, identified as FCE-4110 and FCE-4210, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting through stack 3.
- (c) One (1) salt furnace, identified as SF-5110, with a maximum capacity of 3,260 tons of salt per year, and venting through stack 3.

Permitted and Unpermitted Emission Units and Pollution Control Equipment

There are no permitted or unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also plans to construct the following insignificant activities (other categories with emissions below significant thresholds), as defined in 326 IAC 2-7-1(21):

- (a) Two (2) electric resistance heaters to dry scrap magnesium, identified as HTR-2110 and HTR-2210, total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stacks 1 and 2.
- (b) One (1) shredder, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (c) Two (2) casting conveyor, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally.
- (d) Two (2) cooling conveyor, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally.
- (e) Four (4) heater feed conveyor, each with a maximum throughput of 10,560 pounds of scrap magnesium per hour, and venting internally.
- (f) One (1) shredder feed conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (g) One (1) shredder discharge conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (h) One (1) tramp iron removal magnet system, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (i) One (1) shuttle conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally.
- (j) Four (4) feed storage bins, with a total maximum capacity of 90 tons, and a maximum throughput of 61,760 tons per year and venting internally.
- (k) One (1) magnesium alloy ingot storage area venting internally.
- (l) One (1) aluminum storage area venting internally.
- (m) One (1) zinc storage area venting internally.
- (n) One (1) manganese chloride powder storage area venting internally.
- (o) One (1) primary magnesium ingot storage area venting internally.
- (p) One (1) salt mix storage area venting internally.
- (q) One (1) calcium fluoride storage area venting internally.

- (r) Five (5) natural gas space heaters with a total maximum heat capacity of 8 MMBtu, and venting internally.
- (s) Two (2) natural gas tool heater with a maximum heat capacity of 0.5 MMBtu, and venting internally.
- (t) Two (2) natural gas mold heater with a maximum heat capacity of 0.2 MMBtu, and venting internally.
- (u) One (1) laboratory using wet scrubbers as control.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete FESOP application for the purposes of this review was received on January. Additional information was received on April 4, 2001 and May 5, 2001.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A, pages 1 -4, of this document for detailed emissions calculations.

Potential To Emit for the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	71.8
PM-10	71.8
SO ₂	0.01
VOC	0.13
CO	1.97
NO _x	2.34

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
HCl	17.74
TOTAL	17.74

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict PTE to below Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP). By limiting the amount of salt that is fed to the salt furnace to 3,260 tons per year, the emissions from the salt furnace are limited to less than 10 tons per year of any single HAP. Therefore, Title V requirements are not applicable.
- (c) This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	Single HAP
Two (2) electric melting furnaces FCE-3110, FCE-3210 and two (20) electric continuous refining furnaces FCE-4110, FCE-4210	less than 95	less than 95	-	-	-	-	-
Salt Furnace SF-5110	-	-	-	-	-	-	Less than 10
Two (2) Natural gas space heaters, one (1) tool heater, one (1) mould heater, total heat input 5.4 MMBtu/hr	0.18	0.18	0.01	0.13	1.97	2.34	
Total Emissions	less than 95	less than 95	0.01	0.13	1.97	2.34	Less than 10

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment or unclassifiable for ozone.
- (b) Madison County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. 40 CFR 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) does not apply to this source because this source does not meet the definition of a metallic mineral processing plant. A metallic mineral processing plant produces metallic minerals concentrations from ore. Xstrata recycles magnesium that has already been through production.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source. 40 CFR 63, Subpart CCC (NESHAP for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration plants) does not apply to this source because this source does not meet the definition of a steel pickling processing plant. Xstrata recycles magnesium only, not steel, and does not perform a pickling process.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Madison County and the potential to emit PM is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the salt furnace will be limited to emit less than 10 tons per year of a single HAP and the source emits less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-8 (Federally Enforcement State Operating Permit)

This source shall use less than 3,260 tons of 10 percent $MgCl_2$ make-up process salt per twelve consecutive month period in the salt furnace (326 pounds of 10 percent $MgCl_2$ make-up process salt results in one pound of HCl emissions). This usage limit is required to limit the potential to emit of HCl to less than ten (10) tons per twelve (12) consecutive month period. Compliance with this limit makes the requirements of 326 IAC 2-7(Title V) and 326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants) not applicable. This source shall emit less than 62 pounds per hour of PM10 emissions per intermittent release from each furnace line not to exceed a total 95 tons of PM10 per twelve (12) consecutive months. These furnaces are limited to 95 tons per twelve (12) consecutive months because 5 tons of PM10 per year are assumed to be emitted from the insignificant sources.

326 IAC 6-3-2 (Process Operations)

- (a) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the two preheat furnaces and each of the two melting furnaces shall not exceed 19.9 pounds per hour when operating at a process weight rate of 21,120 pounds per hour. Pursuant to 326 IAC 6-3-2, the allowable PM emission rate from each of the two continuous refining furnaces shall not exceed 12.5 pound per hour when operating at a process weight of 10,500 pound per hour. The allowable PM emission rate for the salt furnace shall not exceed the pound per hour rate calculated using the equation below.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the insignificant sources, items (a)(1) through (a)(21) in the description, shall not exceed 0.55 pounds per hour. All insignificant sources either have a process throughput less than 100 pounds per hour or the fines entrained in the heavy magnesium metal process material are less than 100 pounds per hour.

Testing Requirements

The major pollutant for this source is PM and PM10. Testing is required because the facility must meet a 62 lb per hour limit during each furnace line release and the data provided was data from a similar furnace at another facility. No HCl testing is required because a conservative estimate of emissions were calculated using mass balance and assumed all chlorine gas goes to HCl. As a result no testing is necessary.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal

rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The furnaces has applicable compliance monitoring conditions as specified below:

Once per shift visible emissions notations of the furnace stack exhaust (stacks 1, 2, and 3) shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary to ensure compliance with 326 IAC 6-3 (Process Operations).

Conclusion

The operation of this scrap magnesium recycling source shall be subject to the conditions of the attached proposed FESOP No.: F095-13751-00114.

Appendix A: Emissions Calculations
PM Emissions - Electric Furnace
Company Name: Xstrata Magnesium Corporation
Address City IN Zip: 1820 E 32nd St., Anderson, Indiana 46013
CP: 095-13751
Plt ID: 095-00114
Reviewer: ERG/EG
Date: 06/21/01

PM EMISSIONS CALCULATION

Assumptions:

1. The bulk of the Furnace Area emissions are released 3 times per day for 1 hour per release (total 3 hours of emissions) for each of the two (2) furnace lines. Otherwise, furnaces are sealed. For calculation purposes, all assumed emissions are accounted for in this 3-hour period even though, in practice, there will be some level of continuous emission. The furnaces are sealed units under negative pressure when the ventilation system is operating. The design intent is no leakage to the atmosphere during normal operations other than the 3 – 1 hour periods where the Melting Furnace is open. Maintenance will be performed or scheduled as needed to prevent the furnace leakage. If leaks occur, they will be repaired promptly.
2. Hatch's experience with similar operations and equipment predicts 51.74 pound of emissions during the 1-hour release. A 120% design factor has been used to calculate the plant emissions.
3. 95% of emissions originate in "Furnace Area" and will be release through the roof and stack. 5% of emissions originate from around the facility as non-point source fugitives. For this calculation, we have termed them as emissions from "Other Areas".
4. All emitted PM is PM₁₀. There is no available size fraction data.

Calculation – Total PM Emissions

51.74 lb/hr X 3 hr/day X 2 furnace lines X 120% design factor = 372.53 lb/day from release periods.

372.53 lb/day / 24 hr/day = 15.52 lb/hr average

372.53 lb/day X 365 days/yr / 2000 lb/ton = 68.0 tpy

372.53 lb/day / 95% = 392.14 lb/day total emissions

392.14 lb/day / 24 hr/day = 16.34 lb/hr average

392.14 lb/day X 365 days/yr / 2000 lb/ton = 71.6 tpy

392.14 lb/day – 372.53 lb/day = 19.61 lb/day emissions from other area

19.61 lb/day / 24 hr/day = 0.82 lb/hr average

19.61 lb/day X 365 days/yr / 2000 lb/ton = 3.6 tpy

Summary of Calculation Results

Source	Rate (pounds per day)	TPY	Rate (pounds per hour)
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Roof and stack (combined)	372.53	68.0	15.52
Other areas	19.61	3.6	0.82
TOTAL	392.14	71.6	16.34

Appendix A: Emissions Calculations
HCl Emissions - Salt Furnace
Company Name: Xstrata Magnesium Corporation
Address City IN Zip: 1820 E 32nd St., Anderson, Indiana 46013
CP: 095-13751
Plt ID: 095-00114
Reviewer: ERG/EG
Date: 06/21/01

HCl EMISSIONS CALCULATION

Assumptions:

1. HCl emissions are generated during melting of make-up process salts primarily from the hydrolysis of the MgCl_2 present in the make-up salt mixture.
2. Make-up salt requirements are calculated at 2,900 tons / year. This usage is based upon typical expected composition of furnace sludge and spent salt removed from the process..
3. Up to 10% MgCl_2 will be present in the make-up salt based on equipment design operating parameters.
4. HCl is generated during salt melting by hydrolysis at a rate of 4% MgCl_2 present in the make-up salt feed. (Reference: Kh.L. Strelets "Electrolytic Production of Magnesium", page 136.). Note that the reference is for 45% MgCl_2 and reduced hydrolysis is expected at 10% MgCl_2 .
5. The hydrolysis reaction is $\text{MgCl}_2 + \text{H}_2\text{O} \rightarrow \text{MgO} + 2\text{HCl}$
6. Salt Furnace Rated Melting Capacity: 500 kg/hr (1,102 lb/hr) nominal. A 120% design factor has been used to calculate the plant emissions.

Calculations - Total HCl Emission:

$2,900 \text{ tpy} \times 10\% \text{ MgCl}_2 \times 4\% \text{ MgCl}_2 \text{ hydrolyzed} = 11.6 \text{ tpy MgCl}_2 \text{ hydrolyzed}$
 $(11.6 \text{ tpy}) / (95.20 \text{ molecular weight (mw) MgCl}_2) = 0.122 \text{ t-mole/year MgCl}_2$
 $(2 \text{ moles HCl}) / (1 \text{ mole MgCl}_2) \times 0.122 \text{ t-mole/year HCl} \times 36.46 \text{ mw HCl} = 8.9 \text{ tpy HCl}$

Maximum Emission Rate before Controls

Reported on Form Y3 CSA Number 07647010, Hydrochloric Acid
 $1,102 \text{ lb/hr} \times 10\% \text{ MgCl}_2 \times 4\% \text{ MgCl}_2 \text{ hydrolyzed} = 4.41 \text{ lb/hr MgCl}_2 \text{ hydrolyzed}$
 $(4.41 \text{ lb/hr}) / (95.20 \text{ molecular weight (mw) MgCl}_2) = 0.0463 \text{ lb-mole/hr MgCl}_2$
 $(2 \text{ moles HCl}) / (1 \text{ mole MgCl}_2) \times 0.0463 \text{ mole/hr HCl} \times 36.46 \text{ mw HCl} = 3.38 \text{ lb/hr HCl}$
Maximum Emission Rate: $3.38 \text{ lb/hr} \times 120\% = 4.05 \text{ lb/hr HCl}$

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Xstrata Magnesium Corporation

Address City IN Zip: 1820 E 32nd St., Anderson, Indiana 46013

CP: 095-13751

Plt ID: 095-00114

Reviewer: ERG/EG

Date: 05/08/2001

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

5.4

46.9

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.18	0.18	0.01	2.34	0.13	1.97

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only**

Page 4 of 4 TSD App A

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Xstrata Magnesium Corporation

Address City IN Zip: 1820 E 32nd St., Anderson, Indiana 46013

CP: 095-13751

Plt ID: 095-00114

Reviewer: ERG/EG

Date: 05/08/2001

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.921E-05	2.812E-05	1.757E-03	4.218E-02	7.967E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.172E-05	2.578E-05	3.281E-05	8.905E-06	4.921E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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updated 4/99